

Abstract of the Disclosure

A test apparatus provides pulsatile flows that replicate the human cardiovascular system for qualifying implantable cardiovascular devices before implantation in a patient. A pump provides flow pulses to a mock left ventricle, a mock aortic valve, and a mock 5 aorta. A loop from the ventricle to the aorta bypasses the mock aortic valve and affords connection of the test device. The mock aorta comprises elastic tube sections serially connected in progressively diminishing diameters, and interconnected by adjustable flow restrictors. Each elastic tube section shows about 7% to 12% inside-diameter expansion for 100 mm mercury step increase. A designer's choice over the elasticity of the tube sections 10 and a user's control over the flow restrictor(s) allows the user to shape various target waveforms in regards of flowrate and pressure against time as well as the peaks and drop-off forms in addition.